### **CENTER FOR DRUG EVALUATION AND RESEARCH**

**APPLICATION NUMBER for:** 020779, S022

### **PHARMACOLOGY REVIEW(S)**

# BEST POSSIBLE COPY

C	PPLEMENTAL NDA HEMIST'S REVIEW		1. ORGANIZATION HFD-530		2. NDA NU	
Agouron Pharmaceuticals, Inc.			tate)	20-779 4. AF NUMBER		
10350 North Torrey Pines Road				5. SUPPLEMENT(S)		
La Jolla, CA 92037-1022					BER(S)	DATE(S)
6. NAME OF DR	LIC.			SE2	-022	1/26/99
VIRACEPT <sup>R</sup> T	EPT <sup>®</sup> Tablets		7. NONPROPRIETAR nelfinavir mesylate	ARY NAME		
8. SUPPLEMENT BID dosing of Vi	(S) PROVIDES FOR: racept (nelfinavir mesyla			T	NDMENTS/	REPORTS
10. PHARMACOI	OGICAL CATEGORY		V DICHELON		nent of 11/22	The second secon
Anti-HIV			V DISPENSED	12. RELA	TED IND/N	DA/DMF(S)
3. DOSAGE FOR	M(S)		14. POTENCY(IES)			
Tablets	AME AND STRUCTU		250 mg			
Soquinolinecarbova	ylbenzoyl)amino-4-(pher	nyithio)butyl]-3-				
но	`S None					
CH <sub>3</sub> SO <sub>3</sub> H  CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT	CONHIBUTED NONE	ATIONS				
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023) tablets should be container tightly c CMC perspective.	CONHUBD  CONHUBD  CONHUBD  H  H  B  AND RECOMMEND  Provides for BID dosing proved. The package instanted the tablets are film coated dispensed in the content of the package.	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 2)	inavir mesylate) tablets. bottles now contain 300 0-779/SCF-027), the container laddition, the container let". This Supplement is th	tablets (as	aiscussed du d be kent tiot	iring the review of
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023) tablets should be container tightly compared to the compared to the container tightly compared to the compared to the container tightly contain	CONHUBA  CONHUBA  CONHUBA  H  H  H  S  None  S  AND RECOMMEND  provides for BID dosing or broved. The package instanted the tablets are film coated dispensed in the original losed" and "Dispense in the content of the	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 20 al container. In original container	0-779/SCF-027). the conta	tablets (as	aiscussed du d be kent tiot	iring the review of
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023) tablets should be container tightly c CMC perspective.	CONHUBA  CONHUBA  CONHUBA  H  H  B AND RECOMMENDA  Frovides for BID dosing broved. The package insert the tablets are film coated dispensed in the original dispensed in the original losed" and "Dispense in SIGNA"	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 20 al container. In original container	0-779/SCF-027), the container I addition, the container I r". This Supplement is th	abel now erefore rec	aiscussed du d be kent tiot	iring the review of htly closed, and the statements "Keep or approval from a
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023) tablets should be container tightly comment comments of the container tightly container tightly container tightly comments of the container tightly c	CONHUBU  NONE  S None  S AND RECOMMEND  Provides for BID dosing broved. The package insert the tablets are film coated dispensed in the original losed and "Dispense in SIGNA".  SIGNA  Ph.D.	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 20 al container. In original container	0-779/SCF-027), the container I addition, the container I r". This Supplement is the	abel now erefore rec	discussed du d be kept tigh contains the	iring the review of the closed, and the statements "Keep or approval from a
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023) tablets should be container tightly communication of the communicat	CONHUBU  CONHUBU  H  H  H  CS  None  SAND RECOMMEND  Provides for BID dosing  proved. The package instablets are film coate dispensed in the origin losed" and "Dispense in  SIGNA  Ph.D.  E: HFD-530/S	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 20 al container. In original container  TURE	0-779/SCF-027), the container of addition, the container of the container	DATE	discussed dud be kept tight contains the ommended for COMPLETE	iring the review of htly closed, and the statements "Keep or approval from a
CH <sub>3</sub> SO <sub>3</sub> H  17. COMMENT  CONCLUSIONS  This Supplement submitted and app 20-779/SCS-023). tablets should be container tightly comc perspective.  REVIEWER  AME  George Lunn  CONCURRENCI	CONHUBU  OH  H  H  OH  H  H  OH  H  H  OH  H  H	ATIONS  of Viracept (nelf sert notes that the ed (reviewed in 20 al container. In original container	0-779/SCF-027), the container I addition, the container I r". This Supplement is th	abel now erefore rec	discussed du d be kept tigh contains the	iring the review of the closed, and the statements "Keep or approval from a

## REVIEW AND EVALUATION OF PHARMACOLOGY/TOXICOLOGY DATA

KEY WORDS: REVIEWER NAME: DIVISION NAME: HFD#: REVIEW COMPLETION DATE: ELECTRONIC FILE NUMBER: NDA NUMBERS: SERIAL #/DATE/TYPE OF SUBMISSION: INFORMATION TO SPONSOR: SPONSOR (OR AGENT): MANUFACTURER OF DRUG SUBSTANCE	Ita Yuen Division of Antiviral Drug Products 530 11/5/99 None 20,778 (Oral powder) & 20,779 (Tablets)  022/January 26, 1999/Efficay & labeling supplement Yes () No (X) Agouron Pharmaceuticals, Inc. 10350 North Torrey Pines Road La Jolla, CA 92037-1020
DPIIC	
DRUG:	
Generic Name: N Trade Name: V	elfinavir mesylate (AG1343) IRACEPT®

Chemical Name:

 $[3S-[2(2S^*, 3S^*), 3\alpha, 4\alpha\beta, 8\alpha\beta]]-N-(1,1-$ 

dimethylethyl)decahydro-2-[2-hydroxy-3[(3-

hydroxy-2-methylbenzoyl)amino]-4-

(phenylthio)butyl]-3-isoquinolinecarboxymaide

monomethanesulfonate (salt)

CAS Registry Numbers:

159989-65-8 (AG1343) 159989-64-7 (AG1346)

Molecular Formula/Molecular Weight:

 $C_{32}H_{45}N_3O_4S$  (free base)/M.W. = 567.79

 $C_{32}H_{45}N_3O_4S\cdot CH_4O_3S$  (salt)/M.W. = 663.90

Structure:

RELEVANT INDS/NDAS/DMFS:

IND[\_\_\_]

DRUG CLASS:

HIV protease inhibitor

INDICATION:

Treatment of HIV infection

CLINICAL FORMULATION:

VIRACEPT Tablets are supplied as a light blue, capsule-shaped tablet in a 250 mg strength (the weight of free base) containing calcium silicate, crospovidone, magnesium stearate, and FD&C blue #2 powder. VIRACEPT Oral Powder is available in a 50 mg/g strength (the weight of free base) containing microcrystalline cellulose, maltodextrin, dibasic potassium phosphate, crospovidone, hydroxypropyl methylcellulose, aspartame, sucrose palmitate, and natural and artificial flavor.

ROUTE OF ADMINISTRATION:

Oral

PROPOSED CLINICAL USE:

Treatment of HIV infection

#### INTRODUCTION AND DRUG HISTORY:

Nelfinavir is a protease inhibitor which has demonstrated significant *in vitro* and clinical activity against HIV. Clinical studies have shown the drug to be relative safe, especially compared to previously marketed HIV protease inhibitors. In addition, nelfinavir appears to produce a different pattern of viral resistance compared to other protease inhibitors. Like other drug in this class, nelfinavir is extensively metabolized. VIRACEPT received accelerated